

REMARKS

The Office Action dated November 8, 2001, has been received and carefully noted. The above amendments and the following remarks are submitted as a full and complete response thereto.

By this Amendment, the title, drawings, specification and claims 28, 60 and 63 are amended. The amendments to the claims do not narrow the scope of the claims. No new matter is presented. Claims 28-70 are respectfully submitted for consideration.

The drawings were objected to under 37 C.F.R. §1.83(a). Attached hereto is a Request for Approval of Drawing Corrections along with changes to drawing Figures 2 and 5. Upon approval of this request, formal drawings will be timely filed. Also, the Office Action objected to the drawings because the suspended receptacle recited in claims 28-59 was not shown. The Applicant respectfully submits that the receptacle is shown as being suspended by the shock absorbers 300. See Figure 5. See also page 7 line 14 and page 9 lines 8-9 of the specification. As such, the Applicant has amended Figure 5 to identify the receptacle 30 that is suspended by the shock absorbers 300. The drawings were also objected to as not showing a plug mounted on the shock absorber, as recited in claim 60-62. The Applicant has amended claim 60 to recite that the plug is mounted by the shock absorption and return means.

The drawings were also objected to under §1.83(a) as not showing features as described in the specification. The Office Action noted that the return means 11 is disclosed in the specification as a spring or a piston and requested illustration of a spring or piston. The Applicant has amended Figure 2 responsive to the objection. The

drawings were also objected to as not showing the concave shape 12, convex shape 18, and reference character for the cartridge. The Applicant has amended the specification responsive to the objections. The Applicant has also amended drawing Figure 5 to point out the receptacle. However, the cartridge is not illustrated in this Figure. As stated on page 14 lines 8-9, Figure 5 shows the receptacle, and that the cartridge is housed in its receptacle. Therefore, the cartridge would not be illustrated. As such, the Applicant respectfully requests withdrawal of the objections.

The specification was objected to because the title was not descriptive. The Applicant has amended the title responsive to the objection. The specification was objected to for minor informalities. As discussed above, the specification has been amended to correct subject matter objected to in relation to the drawings. The Office Action also objected to the disclosure of the spring-back shift M in the specification. In particular, the Office Action alleged that the function of the spring-back shift M was not clear because it appeared that the spring-back shift was both a locking means and a shock and vibration absorption movement of the receptacle. The Applicant points out that page 14 lines 10-19 discloses a device that includes a mechanical means for the temporary automatic locking of the shift (M). As such, it is the mechanical means that locks the shift (M). The shift does not perform locking and is therefore, not a locking means. As such, the Applicant respectfully requests withdrawal of the objections.

Claims 28-70 were rejected under 35 U.S.C. § 112, second paragraph, for minor informalities. The Applicant has amended claims 28, 60 and 63 responsive to the rejection. Specifically, claims 28, 60 and 63 have been amended to recite that the plug and the stud are connected by point contact without lateral contact. Support for this

amendment can be found in the drawing Figure 2, as originally filed. In Figure 2, the spherical end of the plug contacts the stud at only one point. The lateral sides of the plug and the stud do not contact each other, therefore, there is no insertion of the plug into the stud. See also page 8 line 17 of the specification. The amendments to claims 28, 60 and 63 do not narrow the scope of the claims. On the contrary, the claim amendments clarify existing features presented in the original claims. The Applicant respectfully submits that all of the claims are now in compliance with U.S. Patent Practice.

Entry of this Amendment is proper under 37 C.F.R. §1.116 since the Amendment: (a) places the application in condition for allowance for the reasons discussed herein; (b) does not raise any new issue requiring further search and/or consideration since the Amendment resolves issues previously discussed throughout prosecution; (c) does not present any additional claims without canceling a corresponding number of finally rejected claims; and (d) places the application in better form for appeal, should an appeal be necessary. The Amendment is necessary and was not earlier presented because it is made in response to arguments raised in the Final Rejection. Entry of the Amendment is thus respectfully requested.

Claims 28-70 are pending. Claims 29-59 depend from claim 28, claims 61 and 62 depend from claim 60 and claims 64-70 depend from claim 63. The Applicant respectfully submits that these depending claims are allowable for their dependency from allowable base claims 28, 60 and 63 as well as the additional subject matter recited therein. As discussed above, the drawings, specification have been amended to overcome the above-noted objections and claims 28, 60 and 63 have been amended to

overcome the rejections under §112, first paragraph. Accordingly, the Applicant respectfully requests allowance of claims 28-70 and the prompt issuance of a Notice of Allowability.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, the Applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to Counsel's Deposit Account No. 01-2300.

Respectfully submitted,



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Enclosures: Marked-Up Copy of Original Claims 28, 60 and 63
Marked-Up Copy of Original Specification
Request for Approval of Drawing Corrections
Notice of Appeal and Petition for Extension of Time (3 months)
Check No. 329085

MARKED-UP COPY OF ORIGINAL CLAIMS 28, 60 and 63

28. (Amended) A data storage or recording device suitable for use in a severe environment, comprising a cartridge [(40)] having a stud [(12, 16 or 18)] hermetically mounted on the cartridge [(40)] and

a receptacle [(30)] having a plug [(10)], wherein,

the cartridge is engageable in the receptacle,

the receptacle is suspended, and

when engaged, the cartridge and the receptacle are electrically connected by the cooperation of the plug [(10)] and the stud [(12, 16 or 18)], said plug [(10)] and said stud [(12, 16 or 18)] being connected by point contact and without lateral contact [not by insertion].

60. (Amended) A data storage or recording device for a severe environment comprising a cartridge [(40)] and a suspended receptacle [(30)], wherein the cartridge and receptacle are electrically connected by the cooperation of a plug [(10)] mounted elastically on the receptacle [(30)] and a stud [(12, 16 or 18)] hermetically mounted on the cartridge [(40)] said plug [(10)] and said stud [(12, 16 or 18)] connected by point contact and without lateral contact [not by insertion], wherein the connection between cartridge [(40)] and the receptacle [(30)] is made by a plurality of pairs of plugs [(10)] and studs [(12 or 16 or 18)];

said plugs [(10)] extending through the wall of the receptacle [(30)] and presenting a protuberant portion having rounded shape;

said plugs being mounted by [on] a shock absorption and return means [(11)];

said studs [(12, 16 or 18)] protruding through the wall of the cartridge [(40)] and presenting a slightly protuberant part;

said cartridge [(40)] and said receptacle [(30)] further comprising engagement means capable of positioning said plugs [(10)] and said studs [(12, 16, 18)] opposite each other so as to make an effective electrical contact and to ensure the mechanical hold of the cartridge [(40)] in the receptacle [(30)]; and

said plugs [(10)] and said studs [(12, 16 or 18)] geometrically adapted to cooperate and create an effective electrical contact when the receptacle [(30)] and cartridge [(40)] are engaged with one another.

63. (Amended) A process for hermetically connecting a data recording and storage cartridge [(40)] and a receptacle [(30)] for use in a severe environment, comprising

point contacting, without lateral contacting, [inserting,] a plug [(10)] mounted elastically on the receptacle [(30)] with a stud [(12, 16 or 18)] hermetically mounted on the cartridge [(40)] to form an electrical connection between said stud and said plug.

MARKED-UP COPY OF AMENDMENTS TO THE SPECIFICATION

[79] the studs 12 or 16 or 18 go through the wall of the cartridge 40 and present a slightly protuberant part with a [concave] convex shape 12, with a plan or shape 16 or with a slightly [convex] concave shape 18;

[82] Persons skilled in the art will understand that the shape of the plugs and the studs is not restrictive here and is given only way of illustration. Preferred plugs have a head with a generally spherical or rounded shape at the top 46. Studs having a head that is slightly [concave] convex 12 are preferred; studs may also have a flat head 16 or a slightly [convex] concave head 18.

[86] Figure 4 shows a preferred manner of [assembling] mounting the [plugs] studs in the wall or contact face of the cartridge 40.

[87] Accordingly, the invention also relates to a process for mounting the studs according to which stud 12 (or 16 or 18) is positioned by its rod 45 in an adaptive opening in a wall of the [receptacle] cartridge 40 by means of a glass welding 4 after which a mold of protective material 60, such as a resin, is deposited around the head 46.